Savannah River Site
Citizens Advisory Board (CAB)

SAVANNAH RIVER SITE

CITIZENS ADVISORY BOARD

2002
ANNUAL WORK PLAN

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INTRODUCTION

The Savannah River Site (SRS) Citizens Advisory Board (CAB) is composed of 25 individuals from South Carolina and Georgia. Originally chosen by an independent panel of citizens from approximately 250 applicants, the board members reflect the diversity of the population affected by SRS. The members, who can serve up to three consecutive two-year terms, represent business, academia, labor, local government, environmentalists, special interest groups, and the general public. Two of the members specifically represent economically disadvantaged persons.

The Board is sponsored by the U.S. Department of Energy Office of Environmental Management and is chartered under the Federal Advisory Committee Act. The CAB provides advice and recommendations to the Department of Energy (DOE), the Environmental Protection Agency (EPA) Region IV, and the South Carolina Department of Health and Environmental Control (SCDHEC) on environmental restoration, waste management and related issues. The CAB uses issues-based Committees to focus on various topics. These issues-based Committees may form working groups or public focus groups to concentrate on a specific issue. The four issues-based Committees of the CAB are:

- Strategic and Long Term Issues
- Waste Management
- Environmental Restoration
- Nuclear Materials

Although there are a wide variety of issues of interest to the CAB, there are limits to the available time and resources. The purpose of this Work Plan is to establish priority issues for each of the Committees, and therefore for the CAB. It allows all Board members to be involved in setting the direction of the CAB, even for the Committees of which they are not members. It allows the CAB to prioritize resource expenditures (people and dollars), and also control the establishment of focus and working groups.

The Work Plan covers one calendar year and identifies the priority issues for each committee. The Committee chairs will structure their activities to focus first on the high-priority items. It is understood that other issues may present themselves, resulting in deviation from the Work Plan. Deviating from the Work Plan is at the discretion of the Committee Chairs, however, they should inform the CAB when this is required.

STRATEGIC AND LONG TERM ISSUES COMMITTEE

Description of the Committee

This Committee is involved in long-term policy, planning and other strategic matters, including issue that "cross cut" the work of other CAB committees. Its work includes many programmatic topics. Some specific areas of interest are development and deployment of technology, the SRS budget decision-making process, long-term stewardship, future land use, facility disposition and relevant national environmental policy.

Priority Issues for 2002

Budget Review/Integrated Priority List. The committee believes that the budget and the associated integrated priority list is a critical topic. Reviews of both current spending and future budgets will receive attention. During review of the budget, budget deferral items and issues related to the work of other committees will be communicated to those committees. Related to the overall budget process is the development of a variety of work plans, including the SRS Strategic and Comprehensive Plan. The committee relates to planning, budget and priority setting process and reports to the CAB on budget, planning and priority matters.

Long-Term Stewardship. The CAB and the general public are very interested in what will happen to the site and the land under the jurisdiction of DOE. The committee works to ensure that the DOE takes a constructive and comprehensive view of protection of the site for future generations and for the ecology of the site. Of primary interest to the committee during this period will be the DOE-HQ long-term stewardship study. The committee is also committed to following complex-wide initiatives related to stewardship, especially with some sites closing by the year 2006. Because of the importance of stewardship, the committee formed a Stewardship Subcommittee. This Subcommittee will be involved in the stewardship process complex wide and study and bring to the attention of the CAB, through the committee, those major policy issues concerning stewardship of which action by the CAB is appropriate. It will encourage CAB committees to integrate the notion of long-term stewardship into its issue deliberations and CAB recommendations.

Strategic Plan and Comprehensive Plan. These two plans are up-dated every two to three years, but there are continuing discussions on matters that are related to these plans. These plans set the mission and vision for the site. Drafts of these plans are reviewed and comments sent to DOE prior to approval of the plans. The CAB receives periodic updates related to the implementation of these plans. Additionally the entire planning process has been and is continuing to be reviewed. Of particular interest is the Infrastructure Plan that is incorporated in the Comprehensive Plan. Site infrastructure is critical for support of missions of the site. Reduced budget constraints, a 40 to 50 year old mission infrastructure, and the decline of infrastructure operating and capital expenditures over the past five years make the management of infrastructure priorities imperative. The committee is interested in getting a better understanding of all that infrastructure encompasses, seeking a method(s) for comprehensive analysis and prioritization of the infrastructure activities related to other activities at the site.

Technology Development. In order to reduce costs and find new methods for environmental clean up, new technology must be continually developed and deployed. The committee will concentrate on

relevant new technology developments including and considering technology development as a factor in CAB committees' deliberations on issues and recommendations, as well as the relationship of the budget to technology development. Technology deployment will be reviewed for both on-site activities and for making the technology available for private license.

Facility Disposition/D&D. As facilities at the site become inactive, the committee is concerned that hazards/risks related to these facilities be properly managed. In addition, inactive facilities and equipment can be used elsewhere or sold. Site surveillance and maintenance cost reductions can be obtained by disposition of facilities. Money saved through this process can be allocated for use by deferred budget items. Facility disposition is also part of the long-term stewardship activity. Decontamination is considered when public health is impacted and decommissioning is considered when substantial cost reductions can be obtained.

National Environmental Policy Act (NEPA). The NEPA process allows the public to participate and to better understand projects and issues through Environmental Assessments (EAs) and Environmental Impact Statements (EISs). The public can participate in and affect DOE decisions by being knowledgeable about the NEPA process. The committee is concerned that a continuous effort is made to monitor NEPA activities. The committee will receive NEPA status reports as well as following activities in the Environmental Bulletins. Other CAB committees will be notified when NEPA activities fall into their areas of interest.

Forest Service and Savannah River Ecology Laboratory (SREL). Natural resource management at SRS ensures the environmental protection and responsible stewardship of the resources at SRS. The Forest Service is charged at SRS with planning and directing the timber management, fish and wildlife management, secondary road management, wildland fire management, public affairs, site boundary program and the support of research development. The SREL is to provide an independent evaluation of the ecological effects of SRS operations through a program of ecological research, education and outreach. The committee will review the relevant work of these organizations.

WASTE MANAGEMENT COMMITTEE

Description of the Committee

This Committee addresses the treatment, storage and disposal of various waste streams, including transuranic waste (TRU), low-level waste (LLW), mixed low-level waste (MLLW) and high-level waste (HLW). They do this with the goal of reducing the highest risk to the public, workers, and the environment. The Committee also addresses issues related to transportation of waste and Environmental Management Integration (EMI), exclusive of the nuclear materials program.

Priority Issues for 2002

CIF Focus Group-Alternative Technologies. The SRS CAB CIF Focus Group will continue its involvement in identification of alternatives for incineration and closure strategies for CIF. Updates to the CAB on scheduling the implementing PUREX treatment technology, technology selection dates, etc. will be provided in a timely manner. Stakeholder acceptance of the alternative selected technology as well as continued monitoring of the selection process will ensure a solution can be implemented and in the long term and determine the future of the CIF.

Americium/Curium Project. Approximately 3,600 gallons of solution containing isotopes of americium (Am) and curium (Cm) are stored in an F-Canyon tank. These isotopes were recovered during plutonium-242 production campaigns in the mid and late 1970's. The continued storage of these isotopes was identified as an item of primary concern in the Defense Nuclear Facility Safety Board's (DNFSB) Recommendation 94-1. The Am/Cm Project has been given authorization to be moved to the HLW program. Plans are for this volume to be transferred through the F-Tank Farm Transfer System to Tank 51 in H-Area to be part of sludge batch 3.

HLW Tank Space Management. As a result of on-going receipts of Canyon wastes and DWPF recycle; the continued generation of Extended Sludge Processing wash water from the preparation of feed for DWPF; and a reduction in ability to evaporate waste, the amount of usable tanks storage space in the Tank Farms continues to decrease.

TRU Waste Program. The CAB identified the Transuranic (TRU) Waste Program as one of high importance from its inception. With the expected completion of the Carlsbad audit, DOE began shipments of its TRU waste to the Waste Isolation Pilot Plant (WIPP) in 2001. In conjunction with the program's progress, CAB focus will remain on the shipments to WIPP. DOE is also developing the technology and planning the facilities to prepare other TRU wastes including Pu-238 waste for shipment to WIPP. New facilities such as HANDS 55 are of interest to the CAB. DOE will continue to accelerate shipments of TRU waste to WIPP and provide updates on all activities related to the TRU waste from Mound program. Significant public participation is expected given that under current transportation requirements, the Mound waste stream can not go directly to WIPP without consolidating assay, sorting, segregating and repackaging activities at SRS.

HLW Tank Closures. In January 2000, the Natural Resources Defense Council (NRDC) and the Snake River Alliance petitioned the Ninth Circuit US Court of Appeals to review and set aside DOE Order 435.1. The petitioners claim the Order is "arbitrary, capricious and contrary to law." The Court of

Appeals review, and potential set aside, of Order 435.1 could delay closing HLW tanks as required by the Federal Facility Agreement. SRS will continue to work with regulators, the public, CAB, and industry to reach agreement on closure methods; to develop closure plans and criteria based on waste characterization, analysis and modeling and design; to build, test and deploy new technology and tools to remove waste from the tanks; to remove residual waste material from the tanks; and to fill with grout for closure. The next tanks scheduled for closure are Tank 19 in FY03 and Tank 18 in FY04.

Saltstone**.** In FY98, Saltstone entered an extended planned lay-up, having processed approximately 300 kgal of Tank 50 Waste Inventory. The HLW System Plan, Rev. 12 assumes that the ETF concentrate stored in Tank 50 will be treated at Saltstone starting in FY02. This will allow Tank 50 to be de-inventoried in preparation for its use as a HLW storage tank. Saltstone will operate on a periodic basis until the start of Salt Processing in 2010. When Salt Processing begins, the Saltstone facility will return to continuous operations.

Salt Processing Start-up. The start up of Salt Processing is scheduled for FY'10. DOE has chosen Caustic Side Solvent Extraction (CSSX) as the preferred alternative, but plans to evaluate other processing alternatives to maintain operational capacity and flexibility in the HLW system in parallel.

DWPF Can Production. The DWPF production rate is impacted in future years by two major factors. First, it is desirable to feed sludge and salt streams at a rate that allows the two inventories to be depleted around the same time. Second, sufficient waste removal funding must be provided to maintain or exceed the planned DWPF production rates. Waste Removal must be funded so that modifications can be made to support the removal of sludge or salt from waste storage tanks. DWPF operation and the production of vitrified wastes will continue to be of interest to the WM committee.

Solid Waste System Plan Updates. The Solid Waste System Plan approved by DOE allows SRS to use the E-Area trenches for low-level waste (LLW) that meets the Waste Acceptance Criteria (WAC). Otherwise, this waste with very low radionuclide concentration would take up expensive vault space in the LLW disposal vaults that were specifically designed for high activity LLW. The SRS CAB has supported this aspect of the System Plan. The predicted results of this action will increase the useful life of the vault space by 14 years and save over $63 million dollars. Continued CAB involvement in this activity is beneficial to SRS and its stakeholders in reducing waste volume and optimizing cost-effective use of waste treatment, storage and disposal facility across the DOE complex. Also of interest are investigations of alternatives to the B-25 disposal containers to reduce subsidence potential, alternatives to reduce subsidence repair costs, alternative closure capping strategies, and alternatives to optimize land utilization.

LLW and MLLW Shipments. The Waste Management Programmatic Environmental Impact Statement (EIS) Record of Decision for Low Level Waste (LLW) and MLLW allows the shipment of LLW and MLLW from SRS offsite for treatment and disposal. Progress in shipping the wastes offsite for treatment and disposal with emphasis on the types of waste and technical/economic justification for offsite shipment is of interest.

Recycle of Scrap Metal/DOE Policy. Last year, the CAB became involved in providing public comment to DOE-HQ on the release of radioactive scrap metals as identified in DOE Order 5400.5. The CAB is now involved in the Programmatic Environmental Impact Statement being prepared by DOE to evaluate various options and policies concerning the release of potentially contaminated scrap metals. CAB

interest remains high in this area. The cost of various release programs versus the risk to the public is a matter of concern.

Processing of Low Curie Salt from HLW Tanks. As part of the Record of Decision, DOE is evaluating other salt processing alternatives for specific waste portions for which processing could be accelerated. These evaluations and potential operations would be undertaken to maintain operational capacity and flexibility in the High-Level Waste (HLW) system, and to meet commitments for closure of the HLW tanks. One of these evaluations and a key to the success of tank space capacity and flexibility is the disposal of low-curie saltcake to Saltstone without further processing. If successful, this process would create tanks space to support more waste removal, feed preparation, and tank closures. Presently, preliminary planning is underway. WSRC is identifying the high potential tanks for low curie salt feed and is finalizing the Waste Incidental to Removal (WIR) evaluation for DOE-SR review during January.

EM Top-to-Bottom Review. In addition to the issues identified above, the Waste Management Committee will review and provide input to DOE on the following suggested initiatives:

- Replacement of B-25 Waste Containers with Soft-Sided Bags
- SCDHEC-Revision of the HLW Water Treatment Permit
- Order 435.1- Removal of radionuclides from HLW Tank
- Order 435.1- Removal of Cesium as key radionuclide
- Alternatives for Glass Waste Storage Facility
- Eliminate Waste Streams to Tank Farms

ENVIRONMENTAL RESTORATION COMMITTEE

Description of the Committee

This Committee addresses the remediation of contaminated areas at SRS including various types of waste units, groundwater and surface water contamination. Included under this Committee are issues related to the Federal Facility Agreement (FFA) and risk management/risk assessment, funding issues, regulatory issues and any/all crosscutting issues as they may pertain to environmental restoration.

Priority Issues for 2002:

Interim Action for the Chemical, Metals, and Pesticides Pits (CMP). DOE plans to commence operation of the Field A Soil Vapor Extraction System at the CMP Pits. This action will employ a cost effective remedial approach to remove Tetrachloroethene (PCE) and Trichloroethylene (TCE) from the vadose zone beneath the pits. Field B was constructed and put into operations in FY 2001 and will continue to operate throughout the year. Additionally, a treatability study to deploy advanced bioremediation to remediate pesticides and PCB's will be implemented. Six hundred cubic yards of contaminated soils will be remediated at the CMP site. The deployment will utilize a patented Microenfractionator designed by H&H Eco Systems, Inc. to blend in microbes and nutrients facilitating bioremediation of the contaminants.

Dynamic Underground Stripping
Dynamic Underground Stripping by steam injection is accelerating removal of Dense Non Aqueous Phased Liquids (DNAPL) in A/M Area. In 2001 remediation of a former Solvent Storage Area was completed, with over 70,000 pounds of solvents removed from the subsurface. In 2002 this technology will be applied at the former M-Area Settling basin and should operate for approximately 24 months. DUS is demonstrated technology aimed at remediating large DNAPL contamination areas.

Old Radioactive Waste Burial Ground Closure The ER Committee will stay involved as DOE completes its Final Actions on the Old Radioactive Waste Burial Ground and its groundwater plumes. (Note: the ER Committee will also request updates on the other (Northwest Plume) plumes and actions items that occur at the ORWBG Complex. Monitored Natural Attenuation of tritium and VOC's in multiple plume areas and phtyoremediation are being deployed at this unit.

Reactor Area Radioactive Seepage Basins. DOE plans to achieve mechanical completion for the stabilization and low perm cover system for the K Reactor Seepage Basin, complete stabilization of C Reactor Seepage Basin and install a final low permeability cover system. Tri-party agreement is needed for a final remedial action prior to the public comment period for the L Reactor Seepage Basin OU.

Implementing Long Term Monitoring Technologies and Natural Remediation Strategies. DOE will continue to provide updates on technologies under consideration to remediate radionuclides/metals, tritium, and solvents,
and strive for new, innovative and cost-effective approaches, including monitoring technologies. As DOE investigates and deploys cost effective natural and passive remedial approaches such as Phytoremediation, Bioremediation and Monitored Natural Attenuation, the ER Committee will monitor

to ensure implementation and long-term effectiveness.

Federal Facility Agreement Public Comment Periods. DOE seeks public participation in unit specific ER activities. The ER Committee will review all applicable feasibility studies, proposed plans and Records of Decisions to ensure community and stakeholder acceptance of site remedial actions and alternatives. The current schedule for ER activity reviews is:

P Area Burning Rubble Pits	Dec 29, 2001- Feb 11, 2002
L Area Reactor Seepage Basins	Dec 26, 2001- Feb 8, 2002
L Area Hot Shop	April 2, 2002 - May 16, 2002
R Area Acid Caustic Basin	Feb 13, 2002 - Mar 29, 2002
R Area Bingham Pump Outage Pits	April 18, 2002 - June 1, 2002

Clean Water Act Regulations. There are several surface water issues that could have a major impact on SRS beginning in 2002 and therefore will be followed closely by the CAB. The new NPDES Permit is scheduled for completion during the first half of the year. New limits for heavy metals such as copper may require the site to spend considerable dollars to attain compliance. In addition, whole effluent toxicity limitations may continue to present compliance problems. Regarding the Total Maximum Daily Load for mercury developed by EPA in 2001, it remains likely that SRS will either have limitations that are difficult to meet, or will be required to implement a minimization plan. In the realm of stormwater, SRS may be classified or reclassified by SCDHEC in a manner that will require compliance with new Municipal Small Storm Sewer System (MS4) regulations, requiring a sizable investment beginning in 2003.

EM Top-to-Bottom Review. In addition to the issues identified above, the Environmental Restoration Committee will review and provide input to DOE on the following suggested initiatives:
- Alternate Burial Ground Complex (ABGC) Remediation
- Enhanced Bioremediation using Microenfractionation
- Remediation of Solvent Tanks
- ABGC Cap in Place in Lieu of Hot Spot Evacuation and Transport (Start Field Work 4/04)
- F Groundwater Treatment Unit Base Injection

Other Issues. In conjunction with above priorities, the ER Committee will be diligent in requesting participation in all regulatory issues involving ER at SRS, particularly crosscutting issues that involve both EPA & SCDHEC. The ER Committee will request a full briefing on pending regulatory actions for the SRS site including Long Term Stewardship and its effect on land use, and other environmental restoration and cleanup efforts.

NUCLEAR MATERIALS COMMITTEE

Description of the Committee

This committee was established to study issues that involve nuclear materials (generally uranium and plutonium) that have an impact on present or future SRS activities, including spent nuclear fuel program activities, nuclear materials management, and nuclear materials integration.

Priority Issues for 2002

Canyon Utilization. The schedules for the operation and eventual shutdown of F and H Canyons are reviewed annually as a result of funding issues and potential need for stabilization of additional materials. Currently the PUREX process of F Canyon is scheduled for shutdown in 2002 and H Canyon is planned for shutdown around 2008.

Progress of FB-Line Plutonium Packaging and Stabilization Project. DOE is now proposing to modify FB Line and upgrade an existing furnace to meet DOE long-term storage capabilities. This project replaces the 235-F project, which replaced the earlier Actinide Packaging and Storage Facility project. It is anticipated that the modifications would consist primarily of upgrades in the 221-F building.

Schedule for Deactivation of Receiving Basin for Offsite Fuels. The Receiving Basin for Offsite Fuels (RBOF) is scheduled to be deinventoried in 2006. Currently the plan is to transfer all RBOF fuel to L Basin and to stop operation of the facility. Such a consolidation would free up funds used to operate and maintain RBOF.

Progress of Melt and Dilute Technology for Spent Nuclear Fuel (SNF) Stabilization
DOE selected Melt and Dilute Technology as the preferred alternative to stabilize SNF. However, before the technology can be used, DOE must demonstrate that the technology will in fact be successful and the waste form suitable for Yucca Mountain. The pilot project will begin in mid-2002.

Plutonium Shipments to SRS
Rocky Flats is scheduled to close December 15, 2006. Plans call for the plutonium to be out of Rocky Flats by the end of 2002. Initially, the Rocky Flats plutonium was to be shipped to SRS for temporary storage. Governor Hodges, SC, has challenged these shipments if DOE doesn't have a final plan for storage at a non-SRS site.

EM Top-to-Bottom Review. In addition to the issues identified above, the Nuclear Materials Committee will review and provide input to DOE on the following suggested initiatives:

- Savannah River Technology Center Tank Farm Modifications
- HB Line Phase II
- Alternate Tech/Aluminum Clad Fuel Stabilization
- DNFSB 2000-2 Phase II Assessments
- Two Man Rule Requirements in K, L Areas
- MC&A Requirements in KAMS
- Highly Enriched Uranium Blend Down Project